

REMARKS

This is intended as a full and complete response to the Final Office Action dated January 27, 2009, having a shortened statutory period for response set to expire on April 27, 2009. Please reconsider the claims pending in the application for reasons discussed below.

Claim Rejections Under 35 USC § 112

The Examiner rejected claim 5 because there is insufficient antecedent basis for "the stove's combustion chamber" in the claim. In response, Applicant has amended claim 5 accordingly. Therefore, Applicant respectfully requests the § 112 rejection be removed.

Claim Rejections Under 35 USC § 103

The Examiner rejected claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Purcell (US 4,964,397) in view of Cappelen (NO 63947) and further in view of Barnett (US 4,502,395). Applicant believes that the Examiner is referring to claims 5, 6 and 8 rather than claims 1-4 as stated in the Office Action. Applicant respectfully traverses the rejection of claims 5, 6 and 8.

According to MPEP 2153, there must be some suggestion or motivation to modify the references. As set forth in the previous response, Purcell merely discloses a fireplace structure having side walls positioned at an angle relative to each other, and Cappelen merely discloses a furnace for firewood stoking, wherein the furnace includes a plate that is folded. A person of ordinary skill knowing Purcell may be aware of the benefits of a reflector sending radiant heat out the front opening of an open fireplace. However, replacing the curved device of Purcell with a flat box according to the present invention would make little sense in an open fireplace, as anyone of ordinary skill would know how to bend a couple of metal sheets into a curve and solder them into a curved, reflecting afterburner as shown in Purcell, and not be induced to replace it with a less advantageous flat reflecting surface. (If, on the other hand, bending sheets of metal is supposed to be beyond a person of ordinary skill, that person would be unable to bend

the metal sheets to provide the present invention). Hence, there is no suggestion or motivation to induce the skilled person to abandon the device of Purcell in favor of the present invention for use in a firebox having an open front.

Furthermore, Applicant respectfully points out that a person of ordinary skill having an existing traditional stove would not put a Purcell device into the stove in the first place, as reflecting heat onto a wall in the combustion chamber serves no purpose. Knowing from Purcell that combustion is improved by providing pre-heated air to an upper zone of the combustion chamber, a person of ordinary skill would most likely provide holes in the device communicating with the lower part of the combustion chamber, i.e. similar to the holes 76 in Purcell and the hole 6 of the present invention. Purcell neither teaches nor suggests that a hole should be drilled in a wall of the stove to provide communication with the atmosphere around the firebox. (Considering that Purcell's device is intended for fireplaces without a front wall, it is hardly surprising that the specification is silent about providing extra holes). As such, a person of ordinary skill would have to flatten the device of Purcell, mount it on a wall within the stove and finally drill a hole in the wall of the traditional stove to arrive at the present invention. There is simply no suggestion or motivation for a person skilled in the art to combine Purcell with Cappelen. Therefore, combining Purcell and Cappelen is done in hindsight knowing the present invention, and does not reflect what was obvious to a person skilled in the art at the time of the invention.

Barnett shows a second stream of air which is expelled near the bottom of the combustion chamber. The channel has to be placed in or near the bottom in order to supply the lower holes 76 in the Purcell device with secondary air. However, it is readily understood by laymen and skilled persons alike that such a channel made of thin sheets would be easily damaged when loading the stove or by the burning wood or coke, and that a channel made of thicker material would be correspondingly harder to install in an existing stove. Hence, installing a channel for secondary air at the bottom of an existing stove is not obvious to someone skilled in the art. On the contrary, it is something anyone with ordinary skill in the art would avoid. Thus, the combination of such a channel with the device of Purcell would NOT have been obvious to a person skilled in the art. Accordingly, combining Barnett and Purcell is done in hindsight knowing the

present invention, and does not reflect what was obvious to a person skilled in the art at the time of the invention.

As the forgoing illustrates, that combination of Purcell, Cappelen and Barnett fails to render claim 5 obvious. Applicant therefore submits that claim 5 is in condition for allowance and respectfully requests withdrawal of the § 103(a) rejection. Additionally, the claims that depend from claim 5 are allowable for at least the same reasons as claim 5.

The Examiner rejected claim 7 under 35 U.S.C. 103(a) as being unpatentable over Purcell in view of Barnett and further in view of Cappelen. Applicant respectfully traverses the rejection. Claim 7 depends from claim 5 and is allowable for at least the same reasons as claim 5. Therefore, Applicant respectfully requests the § 103(a) rejection of claim 7 be removed and allowance of the same.

Conclusion

Having addressed all issues set out in the Final Office Action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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